

Form PTO-1449  
(Rev. 8-83)

MAR 28 2002

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
PP00925.302/  
11862US09SERIAL NO.  
09/954,764

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APPLICANT(s):  
de Boer, et al.

16-14

FILING DATE  
September 18, 2001GROUP ART UNIT:  
Not yet assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
PC	A1	4,355,023	10/19/82	Ehrlich et al.	424	85	
	A2	4,689,299	08/25/87	Insel et al.	435	240.27	
	A3	4,886,796	12/12/89	Eichner et al.	514	211	
	A4	4,923,872	05/08/90	Kostlan et al.	514	258	
	A5	5,068,223	11/26/91	Lipsky et al.	514	019	
	A6	5,100,899	03/31/92	Calne	514	291	
	A7	5,182,368	01/26/93	Ledbetter et al.	530	388	
	A8	5,677,165	10/14/97	de Boer et al.	435	240.27	
	A9	5,874,082	02/23/99	de Boer	424	153.1	

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	B1	0 434 879 A1	07/91	EPO				
	B2	0 555 880 A2	08/93	EPO				
	B3	WO 90/07861	07/90	PCT				
	B4	WO 93/08207	04/93	PCT				
	B5	WO 93/11794	06/93	PCT				
	B6	WO 94/01547	01/94	PCT				
	B7	WO 94/04570	03/92	PCT				
	B8	WO 95/09653	04/95	PCT				
	B9	WO 92/00092	01/92	PCT				
	B10	WO 94/01457	01/94	PCT				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

PC	C1	Armitage, et al., Molecular and Biological Characterization of a Murine Ligand for CD40, Nature 357:80-82 (May 7, 1992)
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Philip Gamba 9/26/03

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OK	C2	Banchereau, et al. Long-Term Human B Cell Lines Dependent on Interleukin-4 and Antibody to CD40, Science 251:70-72 (January 4, 1991)
	C3	Banchereau, et al., Growing Human B Lymphocytes in the CD40 System, Nature 353:678-679 (October 17, 1991)
	C4	Chothia, et al., Canonical Structures for the Hypervariable Regions of Immunoglobulins, J. Mol. Biol. 196:901-917 (1987)
	C5	Claassen, et al., Mononuclear cells from patients with the hyper-IgE syndrome produce with IgE when they are stimulated with recombinant human interleukin-4, J. Allergy Clin. Immunol. 88:713-721 (1994)
	C6	Clark, et al., Activation of Human B Cells Mediated Through Two Distinct Cell Surface Differentiation Antigens, Bp35 and Bp50, Proc. Natl. Acad. Sci. USA 83:4494-4498 (June 1986)
	C7	Clark, et al., Association Between IL-6 and CD40 Signaling IL-6 Induces Phosphorylation of CD40 Receptors, J. Immunol. 145(5):1400-1406 (September 1, 1990)
	C8	Cosimi, et al., Use of Monoclonal Antibodies to T-Cell Subsets for Immunologic Monitoring and Treatment in Recipients of Renal Allografts, N. Eng. J. Med. 305(6):308-313 (Aug. 6, 1981)
	C9	de Boer, et al., Generation of Monoclonal Antibodies to Human Lymphocyte Cell Surface Antigens Using Insect Cells Expressing Recombinant Proteins, J. Immunol., Meth. 152:15-23 (1992)
	C10	DeFranco, et al., Separate Control of B Lymphocyte Early Activation and Proliferation in Response to Anti-IgM Antibodies, The Journal of Immunology 135(1):87-94 (July 1985)
	C11	DiSanto, et al., Generation of anti-human CD8 $\beta$ -specific antibodies using transfectants expressing mixed-species CD8 heterodimers, J. Immunol. Methods 141:123-131 (1991)
	C12	Edgington, How Sweet it is: Selectin-Mediating Drugs, Biotechnology 10:383-389 (1992)
	C13	Fanslow, et al., CD40 MABS M2 and M3 inhibit CD40L Binding and Function, Tissue Antigens 42(3):304 (October 1993)
	C14	Francisco, et al., Activity of a Single-Chain Immunotoxin that Selectively Kills Lymphoma and Other B-Lineage Cells Expressing the CD40 Antigen, Cancer Research 55:3099-3104 (July 15, 1995)
M	C15	Freedman, et al., B7, A B Cell-Restricted Antigen that Identifies Preactivated B Cells, The Journal of Immunology 139(10):3260-3267 (November 15, 1997)

EXAMINER Paul G. M. M. 9/26/03	DATE CONSIDERED:
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MC	C16	Garrone, et al., mAb 104, a new monoclonal antibody, recognizes the B cell antigen that is expressed on activated B cells and HTLV-1 transformed T cells, <i>Immunology</i> 69:541-535 (1990)
	C17	Gascan, et al., Anti-CD40 Monoclonal Antibodies or CD4 <sup>+</sup> T Cell Clones and IL-4 Induce IgG4 and IgE Switching in Purified Human B Cells Via Different Signaling Pathways, <i>The Journal of Immunology</i> 147(1):8-13 (July 1, 1991)
	C18	Gauchat, et al., Modulation of IL-4 induced germline $\epsilon$ RNA synthesis in human B cells by tumor necrosis factor- $\alpha$ , anti-CD40 monoclonal antibodies or transforming growth factor- $\beta$ correlates with levels of IgE production, <i>International Immunology</i> 4(3):397-406 (1991)
	C19	Golub, <i>Immunology a Synthesis</i> , Sinauer Assoc. Inc., Sunderland, MA. pp 19-20 (1987)
	C20	Gordon, et al., Resting B Lymphocytes can be Triggered Directly Through the CDw40 (Bp50) Antigen, A Comparison with IL-4-Mediated Signaling, <i>The Journal of Immunology</i> 140(5):1425-1430 (March 1, 1988)
	C21	Gray, et al., Memory B Cell Development but not Germinal Center Formation is Impaired by In Vivo Blockade of CD40-CD40 Ligand Interaction, <i>J. Exp. Med.</i> 180:141-155 (July, 1994)
	C22	Gruber, et al., Anti-CD45 Inhibition of Human B Cell Proliferation Depends on the Nature of Activation Signals and the State of B Cell Activation, <i>J. Immunol.</i> 142(12):4144-4152 (June 15, 1989)
	C23	Harris, et al., Therapeutic antibodies-the coming of age, <i>Tibtech</i> 11:42-44 (February 1993)
	C24	Hartog, et al., Generation of a humanized anti-CD40 mab for treatment of autoimmune diseases. <i>Immunotechnology</i> 2(4):299 (November 1996) (abstract)
	C25	Jabara, et al., CD40 and IgE: Synergism between Anti-CD40 Monoclonal Antibody and Interleukin 4 in the Induction of IgE Synthesis by Highly Purified Human B Cells, <i>J. Exp. Med.</i> 172:1861-1864 (December 1990)
	C26	June, et al., Role of the CD28 Receptor in T-cell activation, <i>Immunology Today</i> 11(6):211-216 (1990)
MC	C27	Jung, et al., Selective Inhibition of Growth Factor-Dependent Human B Cell Proliferation by Monoclonal Antibody AB1 to an Antigen Expressed by Activated B Cells, <i>J. Exp. Med.</i> 160:1919-1924 (December 1984)

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R. H. G. G. G.

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9/26/02

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## INFORMATIONAL DISCLOSURE CITATION

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Not yet assigned

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<p>W</p>	C28	Kabat, et al., <i>Sequences of Proteins of Immunological Interest, Tabulation and Analysis of Amino Acid and Nucleic Acid Sequences of Precursors, V-Regions, C<math>\alpha</math>-Regions, J-Chain, <math>\beta_2</math>-Microglobulins, Major Histocompatibility Antigens, Thy-1, Complement, c-Reactive Protein, Thymopoietin, Post-gamma Globulin, and <math>\alpha_2</math>-Macroglobulin</i> , sponsored through Contract NO1-RR-8-2118 by components of the National Institutes of Health, Bethesda, MD 20205 (1983)
	C29	Kahan, <i>Immunosuppressive therapy</i> , Curr. Opin Immunology 4:553-560 (1992)
	C30	Knight, et al., <i>The Immunogenicity of the 7E3 Murine Monoclonal FAB Antibody Fragment Variable Region is Dramatically Reduced in Humans by Substitution of Human for Murine constant Regions</i> , Molecular Immunology 32(16):1271-1281 (1995)
	C31	Kriegler, et al., <i>A Novel Form of TNF/Cachectin is a Cell Surface Cytotoxic Transmembrane Protein: Ramifications for the Complex Physiology of TNF</i> , Cell 53:45-53 (1988)
	C32	Kwekkeboom, et al., <i>CD40 plays an essential role in the activation of human B Cells by Murine EL4B5 cells</i> , Immunology 79:439-444 (1993)
	C33	Lane, et al., <i>Activated human T cells express a ligand for the human B Cell-associated antigen CD40 which participates in T cell-dependent activation of B lymphocytes</i> , Eur. J. Immunol 22:2573-2578 (1992)
	C34	Ledman, et al., <i>Anti-CD40 Monoclonal Antibody Blocks the Contract Dependent T Helper Signal Mediated by 5C8 Ag.</i> , Clinical Research 40:154A (1992)
	C35	Linsley, et al., <i>CTLA-4 is a Second Receptor for the B Cell Activation Antigen B7</i> , J. Exp. Med. 174:561-569 (September 1991)
	C36	Muraguchi, et al., <i>Sequential Requirements for Cell Cycle Progression of Resting Human B Cells after Activation by Anti-Ig</i> , The Journal of Immunology 132(1):176-180 (1984)
	C37	Noelle, et al., <i>T Helper Cells</i> , Current Opinion in Immunology 4:333-337 (1992)
	C38	Padlan, et al., <i>A Possible Procedure for Reducing the Immunogenicity of Antibody Variable Domains While Preserving Their Ligand-Binding Properties</i> , Molecular Immunology 28(4/5):489-498 (1991)
	C39	Paul (ED) <i>Fundamental Immunology</i> Raven Press NY 1993 Chapter 8: Immunogenicity and Antigen Structure page 242 only
	C40	Paulie, et al., <i>The Human B Lymphocyte and Carcinoma Antigen, CDw40, is a Phosphoprotein Involved in Growth Signal Transduction</i> , J. Immunol. 142(2):590-595 (January 15, 1989)
	C41	PCT Written Opinion, International Application No. PCT/US97/02858 dated June 23, 1997

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No	C42	PCT Written Opinion, International Application No. PCT/US97/02958 dated November 21, 1997
	C43	Ross, et al., <i>Characterization of nerve growth factor receptor in neural crest tumors using monoclonal antibodies</i> , Proc. Natl. Acad. Sci. USA <b>81</b> :6681-6685 (November 1984)
	C44	Rousset, et al., <i>Cytokine-induced Proliferation and Immunoglobulin Production of Human B Lymphocytes Triggered through Their CD40 Antigen</i> , J. Exp. Med. <b>173</b> :705-710 (March 1991)
	C45	Sato, et al., <i>Biological Effects in Vitro of Monoclonal Antibodies to Human Epidermal Growth Factor Receptors</i> , Mol. Biol. Med. <b>1</b> :511-529 (1983)
	C46	Splawski, et al., <i>Immunoregulatory Role of CD40 in Human B Cell Differentiation</i> , The Journal of Immunology <b>150</b> :1276-1285 (February 15, 1993)
	C47	Stamenkovic et al., <i>A B-lymphocyte Activation Molecule Related to the Nerve Growth Factor Receptor and Induced by Cytokines in Carcinomas</i> , EMBO Journal <b>8</b> (5):1403-1410 (1989)
	C48	Stuber, et al., <i>Blocking the CD40L-CD40 Interaction in vivo specifically prevents the priming of T Helper 1 Cells through the inhibition of Interleukin 12 Secretion</i> , J. Exp. Med. <b>183</b> :693-698 (1996)
	C49	Tanaka, et al., <i>Distinct Reactivities of four Monoclonal Antibodies with Human Interleukin 2 Receptor</i> , Microbial. Immunol. <b>29</b> (10):959-972 (1985)
	C50	Uckun, et al., <i>Temporal Association of CD40 Antigen Expression with Discrete Stages of Human B-Cell Ontogeny and the Efficacy of Anti-CD40 Immunotoxins Against Clonogenic B-Lineage Acute Lymphoblastic Leukemia as Well as B-Lineage Non-Hodgkin's Lymphoma Cells</i> , Blood <b>76</b> (12):2449-2456 (December 15, 1990)
	C51	Valle, et al., <i>mAb 104, A New Monoclonal Antibody, Recognized the B7 Antigen that is Expressed on Activated B Cells HTLV-1-Transformed T Cells</i> , Immunology, <b>69</b> :531-535 (1990)
	C52	Ward, et al., <i>Blocking of adhesion molecules in vivo as anti-inflammatory therapy</i> , Therapeutic Immunology <b>1</b> :165-171 (1994)
	C53	Webb, et al., <i>Cell-Surface Expression and Purification of Human CD4 Produced in Baculovirus-Infected Insect Cells</i> , Proc. Natl. Acad. Sci. USA <b>86</b> :7731-7735 (October 1989)
	C54	Wetzel, et al., <i>Evidence for Two Distinct Activation States Available to B Lymphocytes</i> , The Journal of Immunology <b>133</b> (5):2327-2332 (November 1984)
	C55	Winter, et al., <i>Antibody-based Therapy, Humanized Antibodies</i> , TIPS <b>14</b> :139-143 (1993)


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Philip G. Smith 2/16/07

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me	C56	Yellin, et al., CD40 Molecules Induce Down-Modulation and Endocytosis of B7-1 Surface T Cell-B Cell Activating Molecule/CD40-L, J. of Immunology 155:598-608 (1994)
	C57	Zhang, et al., CD40 Stimulation Provides an IFN- $\gamma$ -Independent and IL-4 Dependent Differentiation Signal Directly to Human B Cells for IgE Production, Journal of Immunology 146(6):1836-1842 (March 15, 1991)
	C58	Boussiotis, et al., Activated Human B Lymphocytes Express Three CTLA-4 Counterreceptors That Costimulate T-Cell Activation, Proc. Natl. Acad. Sci. USA 90:11059-11063 (December, 1993)
	C59	de Boer, et al., Functional Characterization of a Novel Anti-B7 Monoclonal Antibody, Eur. J. Immunology 22(12):3071-3075 (December, 1992)
	C60	Freeman, et al., B7-1, A New Member of the Ig Superfamily with Unique Expression on Activated and Neoplastic B Cells, The Journal of Immunology, 143(8):2714-2722 (October 1989)
	C61	Freeman, et al., Cloning of B7-2: A CTLA-4 Counter-Receptor That Costimulates Human T Cell Proliferation, Science 262:909-911 (1993)
	C62	Jenkins, et al., Antigen Presentation by chemically Modified Splenocytes Induces Antigen-Specific T Cell Unresponsiveness in Vitro and in Vivo, Journal of Experimental Medicine 165:302-319 (February 1987)
	C63	Jenkins, et al., Molecular Events in the Induction of a Nonresponsive State in Interleukin 2-Producing Helper T-Lymphocyte Clones, Proc. Natl. Acad. Sci. USA 84:5409-5413 (August 1987)
	C64	Vandenbergh et al., In situ Expression of B7/BB1 On Antigen-Presenting cells and activated B Cells: an Immunohistochemical study International Immunology 5(3):317-321 (March 1993)
m	C65	Dancescu et al., IL-4 Induces Conformational change of CD20 Antigen Via A Protein Kinase C-Independent Pathway 148(8):2411-2415 (April 1992)

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